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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,395	07/15/2003	Kerstin Hell	512425-2091	7676

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New York, NY 10151

EXAMINER

PENG, KUO LIANG

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/619,395	Applicant(s) HELL ET AL.	
	Examiner Kuo-Liang Peng	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/19/05 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicants' amendment filed on September 19, 2005 was received.

Claims 14 and 17-20 are amended. Now, Claims 1-20 are pending.

2. Claim objection(s) in the previous Office Action (Paper No. 0305) is/are removed.

3. Claim rejection(s) under 35 USC 112 in the previous Office Action (Paper No. 0305) is/are removed.

4. The text of those sections of Title 35, U.S. code not included in this action can be found in a prior Office Action (Paper No. 0305).

5. Claims 11 and 17-19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 11 (line 3), the term “4-methyl-1-butylpridinium tetrafluoroborate” is not supported in Claim 10. Furthermore, there appears to be a typographical error in this term.

In Claim 17 (lines 2-3), it is not clear as to what “the 2-position” refers to.

Claim Rejections - 35 USC § 103

6. Claims 1-9, 12-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy (WO 00/32572) in view of Hardman (Silicones, Reprinted from Encyclopedia of Polymer Science and Engineering, vol. 15, 2nd Ed., pages 254-258, 298 and 230) as evidenced by Meals (Pure Appl. Chem. 13, 141 (1966)), and Sheldon (“Catalytic reactions in ionic liquids”, Chem. Commun., pp. 2399-2407, 1996), alternatively Vaultier (Symposia Papers Presented Before the Division of Environmental Chemistry, American Chemical Society, San Diego, CA, 41(1), 398-400, April 1-5, 2001, “Transition metal catalyzed hydroboration and hydrosilylation of acetylenes in ionic liquids”)

The rejection set forth in paragraph 8 of the previous Office action (Paper No. 0305) is maintained. Applicant's arguments have been fully considered but they are not persuasive. The focus argument related to the core patentability is

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discussed below. Applicants' argument is not persuasive because of the following reasons:

For Applicants' argument (Remarks, page 14, 1st paragraph, to page 15, last paragraph), despite Applicants alleged comments on *Keller* and *Merck* decisions, the references cited, as a whole, do teach the process set forth in the instant claims. Applicants question that it is unclear what is the groupings of the secondary references. Note that in the references cited, Murphy is the primary reference, and Hardman, Sheldon and Vaultier are the secondary references. Meals is merely a reference to be used to further interpret Hardman's teaching. For example, Meals is cited in Hardman for hydrosilylation of a SiH- containing polysiloxane. Either Sheldon or Vaultier can be applied for the teaching of recycling the ionic liquid. Thus, as a whole, Murphy in view of Hardman as evidenced by Meals teaches a process of reacting a SiH-containing polysiloxane with a compound containing C-C multiple bond in the presence of an ionic liquid. Either Sheldon or Vaultier teaches the recycling of the ionic liquid. For Applicants argument (page 16, 3rd paragraph to 5th paragraph), Murphy's preparation of polyolefins or polyisobutylenes is merely a preferred embodiment. Murphy certainly does not teach away the use of the ionic liquid in hydrosilylation reactions. See MPEP 2123. Furthermore, as mentioned in the previous Office action, in view of the

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aforementioned Encyclopedia and Meals, one of ordinary skill in the art would know that hydrosilylation has been extensively employed for the synthesis of organofunctional polysiloxanes. For Applicants' argument (page 16, last paragraph to page 17, 3rd paragraph), the disadvantages in the art mentioned in Applicants' specification is irreverent here because Murphy has already taught the use of ionic liquid, which should not have the aforementioned disadvantages. The basis for using Hardman is not based on "could be combined" logic because the Hardman as evidenced by Meals provides the well-known practice of polysiloxane in a typical hydrosilylation. Regarding Applicants' comment on Meals, note that as mentioned previously, Meals cited here merely to indicate that Hardman does teach the use of polysiloxane. As a matter of fact, Murphy has already taught the feasibility of the hydrosilylation reaction. Therefore, Applicants' comment on Meals is irreverent. For Applicants' argument (page 17, last paragraph to page 19, 2nd paragraph), as mentioned in the previous Office action, Murphy teaches the process comprising a step of chemical separations. Murphy is silent on a specific step of separating the ionic liquid with the dissolved catalyst from the reaction mixture and recycling the ionic liquid with the dissolved catalyst. However, Sheldon teaches that it is desirable to efficiently recycle the ionic liquid with the dissolved catalyst in order to minimize chemical wastes. (page 2399, 1st paragraph) Note that Applicants

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admit that Sheldon is really a review of the state of art regarding catalytic reactions in ionic liquids at the time of its publication. (Remarks filed on January 25, 2005, page 14, 3rd paragraph) Thus, in view of Sheldon's teaching, one of ordinary skill in the art would readily recognize the advantages of the catalyst system in the presence of an ionic liquid, i.e., efficient recycling of the catalyst, minimizing waste, economically attractive, etc. In addition, Vaultier is one of references in the state of art that teach the advantages of the catalyst system in the presence of an ionic liquid for hydrosilylation. Especially, note that Vaultier is in the same field as Murphy's endeavor, i.e., hydrosilylation.

7. Claims 1-9, 12-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaultier in view of Hardman as evidenced by Meals.

Examiner's position as mentioned above are applicable here.

8. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the above references, taken alone or in combination, teaches or fairly suggests the use of the specific ionic liquid set forth in the instant claims.

9. Claims 11 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The patentability of the instant claim is described in the previous Office action.

10. Claims 17-18 would be allowable if rewritten to overcome the duplicate claim issue and/or claim objection, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

None of the above references, taken alone or in combination, teaches or fairly suggests the use of the specific ionic liquid set forth in the instant claims.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed

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within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about

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the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp

November 26, 2005


Kuo-Liang Peng
Primary Examiner
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